From: Henney, Travis (J.) [thenney@ford.com]

Sent: 3/14/2013 8:57:26 PM

To: Caffrey, Peter [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=C0cd89ca6b67467894d7cce425253583-Caffrey, Peter]; Dean, Clifford

[/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=4a9060ddd6944374ae3640dd30adadc6-CDEAN]; Greuel, Justin

[/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=76f822fa08344d0b85f00cb408a6c520-JGREUEL]; Nevers, Chris

[/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=A07a9723e93c43d9843e466f7fac0638-Nevers, Chris]; Orehowsky, Gregory

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(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=48a0e3aeda42426280f28b57447bdbf6-GOREHOWS]; Smith, Jay

[/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=20b4e52899be41f990e3e14de7db52cb-Smith, Jay]; Wehrly, Linc

[/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP

(FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=64e5f31ccb4841018441b3bf074842d0-Wehrly, Linc]

CC: Bogema, John (P.) [jbogema@ford.com]; Fagerman, Todd (T.M.) [tfagerma@ford.com]; Stoll, Bob (Robert E.)

[rstoll@ford.com]; Whitbeck, Neil (N.G.) [nwhitbec@ford.com]

Subject: EPA-Ford Meeting Summary - 3/11/2013

EPA,

A summary of our meeting from Monday, below. Please respond to me if there are errors/omissions/disagreements to the record of discussion or agreements and I will update and resend.

We thank you for your time and consideration.

Date of Meeting: Monday, 3/11/2013; 14:30-16:00

Location: EPA Ann Arbor

EPA Attendees: Peter Caffrey, Cliff Dean, Justin Greuel, Chris Nevers, Greg Orehowsky, Jay Smith, Linc Wehrly

Ford Attendees: John Bogema, Todd Fagerman, Travis Henney, Bob Stoll, Neil Whitbeck

Topic: Greenhouse Gas Labeling

Summary: Ford (B. Stoll) reviewed presentation provided.

Follow-Ups:

- EPA will review the Ford label proposal and provide feedback on acceptability. J. Smith
- EPA will review regulatory citation questions asked and provide clarification. (Tied to follow-up above) J.
 Smith
- Ford will provide regulatory revision guidance that may provide flexibility on how/where to record engine build date. Ford response "Current and GHG labeling requirements allow omitting build date from the labels if manufacturer maintains records of build date versus engine serial number. Ford imbeds the build date in the engine serial number in positions 6-11 in ddmmyy format. [B. Stoll] included that info in email with the diesel label to J. Smith, indicating we [Ford] believe that satisfies the requirements to omit the date from the IEI/VECI labels."
- Subsequent to meeting, J. Smith requested an example of the proposed label for a diesel engine. B. Stoll supplied that on 3/12/13.

Agreements:

Pending clarification on regulatory guidance above.

Topic: DEF Refill Range Discussion

Summary: Ford asked about EPA's current status on DEF refill range requirement for future products. L. Wehrly shared that revised guidance should be published soon. In the meantime, manufacturers may request approval of a DEF refill range via the (b)(7) process.

Follow-Ups:

Ford will assemble a DEF refill range proposal for future products. - Ford

Agreements:

N/A at this time.

Topic: Revisit Revised 2014MY+ Cert Preview

Summary: Ford (T. Henney) reviewed a revised Cert Preview plan from last discussion in December, 2012. 2014MY HDGE and HDDE application and AECD submittal dates were discussed. The classification and durability plan for an upcoming (2016MY) MHDDE product using the Ford 6.7L engine were described, including use of the existing Ford HD diesel service accumulation cycle.

Follow-Ups:

None required at this time. Ford will contact EPA if the proposed test plan for the DF determination changes. Agreements:

There were no objections to the Ford classification and durability proposal for this product. Ford will proceed as described.

Topic: DEF Quality Detection Status & Update

Summary: Ford (J. Bogema) reviewed the presentation provided on Ford's current status for DEF quality detection and actions to maintain compliance. Ford also reviewed the phase-in plan for an in-tank DEF quality sensor for upcoming products. Ford shared details on how additional gains were achieved with the current NOX sensor based system, the challenges of attempting to push the performance of the current system, and the desire to dedicate resources to implementing a quality sensor based system. EPA (L. Wehrly and J. Greuel) shared EPA's current thinking on the DEF quality detection and action requirements, including concurrence that although it is a performance based requirement that the quality sensor is the most likely technology to achieve desired outcomes. EPA shared plans to publish industry guidance that should help provide some clarity for performance and timing requirements regarding DEF quality. Follow-Ups:

None required at this time. Ford awaits upcoming EPA guidance.

Agreements:

- EPA indicated that they had no concerns regarding the capability of our system for '14 MY, or about our plans for urea quality sensor phase in timing as show in our presentation.
- Ford will continue with its current CBI / Ex. 4 vith the performance gains described for products shown until replaced with quality sensor based solution over the implementation time table provided.
- Ford will continue to look for refinements of the CBI / Ex. 4 but does not expect significant gains for either detection or actions to maintain compliance beyond the levels shown.
- EPA will contact Ford if there are implementation timing concerns that conflict with the quality sensor roll-out schedule shown.
- Ford will revisit this plan with EPA during 2015MY Cert Preview (expected late 2013).

Topic: Diesel Aftertreatment Bench Aging - Request To Approve 4K Equivalent Bench Aging Process

Summary: Ford (T. Henney) reviewed the presentation provided describing the Ford diesel bench aging process and requesting approval to use the process to age 4K equivalent aftertreatment systems for certification testing. The results of a Ford test program demonstrating equivalence between diesel aftertreatment systems aged to 4K road miles and 4K equivalent accelerated bench aged miles were shown.

Follow-Ups:

Ford will draft a letter with regulatory citations requesting approval to use the diesel bench aging process for 4K equivalent aftertreatment systems. – T. Henney

Agreements:

N/A

Best Regards,

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